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AUTHOR	Choo, Lay Hiok; Jewell, Paul D.
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ABSTRACT

This paper examines similarities between the goals of Aikido, a martial art, and critical thinking and argues that Aikido promotes the development of thinking in its training and practice. It applies these ideas to the gifted education curriculum. First the paper introduces characteristics of Aikido, Aikido movement and techniques. It equates goals such as self actualization and development of a sense of responsibility in both Aikido and gifted education. It notes, however, differences in the process of learning, since gifted education emphasizes higher order thinking and Aikido emphasizes experiential learning. But the paper suggests that Aikido training can develop types of critical thinking, creative thinking, and caring thinking based on knowledge gained from long practice, the freedom of movement encouraged, and interaction with one's partners. (Contains 20 references.) (DB)

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Correspondence should be addressed to

Dr Paul Jewell

SEDS, Sturt Buildings

Flinders University

GPO Box 2100, Adelaide, Australia 5001

Tel (08) 8201 2576 Fax (08) 8201 3210 Email Paul.Jewell@flinders.edu.au

Biographical details:

Lay Hiok Choo (Juliet) is a Special Education teacher in Singapore and has recently completed a Master of Special Education at Flinders University. She is currently involved in a cross-cultural research at University of Queensland. She has been training in aikido since 1991.

Paul Jewell is a senior lecturer in Gifted Education at Flinders University, where he teaches Critical Reasoning in the Master of Gifted Education.

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Martial Arts and Critical Thinking in the Gifted Education Curriculum.

Abstract

This paper is co-authored by two educators, one of whom lives and works in Singapore and the other in Australia. The Australian is a lecturer in Critical Thinking and the Asian a keen student of the martial art of Aikido. Although martial arts and critical thinking come from two very different cultural systems, they need not be considered in opposition to each other. While practitioners in gifted education recommend critical thinking, creative thinking and caring thinking, these practices are also found in Aikido. Aikido, with its emphasis on harmony, its thoughtful movements and endless numbers of techniques, may appeal to gifted students while broadening their cognitive and physical abilities.

Introduction

The title of this paper "Martial Arts and Critical Thinking in the Gifted Education Curriculum" implies that a connection can be made between the disciplines of Critical Thinking and Martial Arts (in this case, the art of Aikido), and further that such a connection may usefully inform Gifted Education. Prima facie, such a connection seems unlikely. Martial arts are linked with the mystical powers of the East and Eastern philosophy whereas Critical Thinking is derived from methods of logical analysis found in Western philosophy.

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Martial arts involve the physical body and are associated with reflexes and gross motor skills. Critical Thinking involves the intellect and is associated with inquiry skills, information organisation, and reasoning strategies. In Critical Thinking, language is used to express one's thoughts. In martial arts, the body is the medium for experiencing and understanding power or ki.

Despite its apparent differences from Critical Thinking, Aikido, as a physical discipline, is not devoid of mental development. In terms of Gardner's (1993) multiple intelligences, there is emphasis in Aikido on the development of the kinaesthetic, the spatial, the interpersonal and intrapersonal intelligences. Moreover, spiritual growth is part of the ultimate goal of martial arts and Aikido training does involve some form of reflection.

In this paper, we will examine how the goals of Aikido are similar to and different from those of Critical Thinking. We will argue that Aikido promotes the development of thinking in its training and practice. Further, we will consider what applications it may have to gifted education. Firstly though, we need to provide a brief introduction to Aikido.

Aikido characteristics

Aikido is a Japanese martial art developed by Morihei Ueshiba in the late 1920s. The term ai-ki-do can be translated as "the way of harmony with ki". The concept of ki is central to Aikido, yet its meaning is difficult to clarify and many interpretations exist. In Oriental philosophy, ki can be understood as a vital energy or life force that exists in nature (universal ki) as well as in the individual (personal ki). Hence, a commonly stated goal in Aikido (to harmonise ki) is the unity of one's personal ki with the universal ki. This is also sometimes

expressed as unity of ki, mind and body. A characteristic feature of Aikido is non-contention. The Founder, Morihei Ueshiba, believed that the ultimate aim of budo (way of martial arts) is to become free of self and attain no-self. Because he believed that a competitive and combative atmosphere fuels egotism, self-concern and disregard for others, and therefore contradicts the true spirit of budo, there are no competitions, contests or tournaments in Aikido.

Aikido movement and techniques

Aikido movement is characterised by flowing dance-like circular motions (pivoting, entering, circling) and has often been compared to nature's movement (flowing stream, waves) that is efficient, rational and soft with an immovable centre. The laws of physics such as centrifugal and centripetal forces can also be used to explain Aikido movement but their essential beauty comes from the unity of ki-mind-body. Aikido techniques were devised to deal with the question of how to defend oneself from an opponent of superior size, strength and experience. The techniques use the form of a firm stable centre, spherical rotation and joint-locks which attack anatomical weak points. There are also throwing, locking, controlling, pinning and balance breaking techniques which do not require brute strength if applied correctly.

Comparing the goals of Gifted Education and Aikido

Education reflects the needs and values of society (Kitano and Kirby 1986). Whether a person is judged 'gifted' depends largely upon the values of the culture and society (Davis and Rimm 1998). Thus, the goals of gifted education can be seen as helping talented and gifted students to maximise and extend their high potential with the result that they may, one day, contribute

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significantly to society. In Gifted Education, the goal of self-actualisation for the gifted person is combined with the development of a sense of responsibility to self, school and society. It is, therefore, reasonable to assert that gifted education aims to produce well-rounded and moral individuals.

How do these goals compare with those of Aikido? In the pamphlet " Aikido- a guide for new members", the Aikikai Foundation (2000) states that the objective of Aikido is 'to contribute to making a better society through training of both body and spirit'. Seen in this light, the stated purpose of Aikido is perhaps not unlike that of gifted education - to contribute to society. Furthermore, the Founder stated that the purpose of Aikido is to train mind and body and to produce sincere and earnest people, to develop the truly human self. The fact that Aikido is a spiritual path undertaken by the individual means that it is ultimately a personal endeavour and its essence can only be realised by the whole person.

The process of learning

Despite the similarity in their goals, the processes by which gifted education and martial arts aim to attain 'a better society' are different. In gifted education, there is an emphasis on higher order thinking and intellectual inquiry. By contrast, Aikido has a general de-emphasis of knowledge by analysis. This does not mean, though, a complete denial of analytical and rational thinking. Rather, as Ueshiba (1987) stated, proper understanding of ki in Aikido must be experiential as well as intellectual, intellectual as well as experiential. Indeed, a written essay is included in the grading examination for second-dan (second degree black belt). Ueshiba (1987: 76) noted that the Founder disliked teaching by words and preferred that each person realise it through training and practice as expressed in his poem:

Ai-ki cannot be exhausted

By words or spoken

Without dabbling in idle talk

Understand through practice

In Ueshiba's views, the secrets of Aikido can only be known personally through actual experience and all matters related to the human heart and spirit are of such a nature. This is perhaps an aspect of 'knowledge' not popular in the thinking system of the west. As the understanding of giftedness has largely been based on the western thinking system, it is, perhaps, beneficial to adopt a multi-dimensional understanding of giftedness. The introduction of Aikido into the curriculum of gifted students can encourage exploration beyond the regular subject matters of language, mathematics and science. Furthermore, the types of thinking associated with gifted education, that is, critical, creative and caring thinking (Lipman 1994, Pohl 2000) are also present in varying degrees in Aikido. Before we examine how these types of thinking are inherent in Aikido, we will compare the thinking systems that guide gifted education and Aikido.

Historical comparisons

De Bono (1996) laments the fact that Socrates, Plato and Aristotle have had such a great influence in the thinking system of the western world, which he considers too rigid. This thinking system emphasises logic, analysis, reasoning, judgement, argument and criticism. Such a thinking system appears to be in sharp contrast, even opposition, to the paradoxical logic predominant in Eastern thinking. Aikido is an Eastern art and it has been described by

Kamata and Shimizu (1992) as "moving Zen" and zazen as "Aikido at rest". Nonetheless, comparisons can be made between the sources of the two cultures. There is a remarkable similarity between the ancient Chinese concept of Tao and the ancient Greek concept of Logos (Moore and Bruder 1993). In each culture, the concept was the source of order, and in each culture it was ineffable. It is interesting to note that, though on opposite sides of the globe, the seminal Eastern philosopher Confucius lived at the same time as the seminal Western philosopher Socrates. Each was concerned with right action, virtue, and the nature of the fully developed person. To return to de Bono's "gang of three", Plato was a follower of Socrates and a teacher of Aristotle. Plato recommended martial arts as a necessary part of education (Plato in Edman, 1956). He maintained that they promoted harmony of body and soul, and the production of a well rounded person (Cooney, 1993). Plato was no stranger to the paradoxes of logic proposed by Parmenides (Jones 1970). Like philosophers in the Eastern tradition, he believed that the fundamental truths could not be expressed in language. Like Aikido practitioners, he was interested in patterns of movement such as circular motion around a fixed centre. Like many gifted thinkers, he found paradoxes, logic, metaphysics and differing world views intriguing, challenging and fascinating.

From a historical point of view, the 'Western' thinking system is not too unlike that of 'Eastern' thinking system. But what about critical, creative and caring thinking? How are they manifested in aikido and aikido practice? We will consider each type of thinking in turn.

Critical thinking in Aikido

Ennis (1985, in Bernstein 1990: 79) defines critical thinking as 'reasonable reflective thinking that is focused on what to believe or do'. Since Aikido aims to cultivate the spirit, mind and body so that one's intuitive action is correct action, the process of this cultivation does involve some form of 'reasonable, reflective thinking'. Thus, critical thinking is inherent in Aikido.

A way in which martial arts may seem to hinder the development of critical thinking lies in the way training sessions are carried out and in the unequal sensei-student and senior-junior relationships. In martial arts training, it is common, for the sensei to teach techniques without discussing their significance (Hyams 1982). Students are also not encouraged to ask too many questions. However, this does not mean that students are prevented from applying a critical mind to the sensei's teaching. Rather, a student is required to adopt an open mind that is receptive to new knowledge; one should not be full of one's own opinions and speculations. The student is expected to observe keenly and discover the technique for her/himself. This is an aspect of martial arts where it is held that true knowledge is experiential and not meant to be intellectualised. Hyams gave the example of explaining the taste of sugar. He argued that verbal description would never capture the sensation. To know the taste of sugar, one must experience it.

The sensei-student and senior-junior relationships imply inequality and one wonders if 'critical thinking' can be promoted under such circumstances. During practice, it is usually the senior student who takes the lead in performing the technique and guides the junior. The junior student is also not supposed to correct a senior student. However, if either corrects the other, the act of correcting is not about critical thinking. In the paradigm of martial arts, it is considered a demonstration of egotism. Expression of ego goes against the aim of budo, which is to diminish the ego. Yet, if the senior has genuinely attained a smaller ego, s/he will

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appreciate the alertness of the junior, or if the junior is mistaken, the senior may show the junior where the latter had been wrong without causing or taking offence. The relationship in Aikido may be considered unequal but there is mutual respect between sensei and students and among students themselves. It is not inequality per se that threatens critical thinking. It is a lack of mutual respect.

Many martial arts emphasise training a pattern of techniques repeatedly. In Aikido, there are endless variations of techniques to learn but there is also an emphasis on practising the basic techniques repetitively. Some educators are of the view that gifted students may not be motivated to put efforts into rote learning tasks that involve a high level of repetition. Porter (1999) suggests that they can be impatient with repetition of activities that they already understand. Hence there is a chance that the repetitive nature of training in Aikido may bore gifted students. On the other hand, musically gifted students engage in a great deal of practice. So what is really involved in repetitive training?

Repetitive training in Aikido is not rote learning. Every training situation is different. The technique to be learnt may be the same but many factors (angle of attack, timing, resistance from the partner) affect how well the technique will be performed. Moreover, repetitive practice is about letting training and practice take over from conscious striving so that the person can act spontaneously in a crisis. In the words of Suzuki (cited in Hyams, 1982: 91) 'one must transcend techniques so that the art becomes an artless art, growing out of the unconscious'. Gifted students, despite their advanced learning capabilities, are likely to encounter the difference between theoretical knowledge and experiential knowledge when they train in Aikido. This is likely to make them aware of the need to align these two types of knowledge.

Creative thinking in Aikido

Creative thinking is about being inventive, inquisitive, experimental, holistic, original, fluent and flexible. Good creative thinking also rests upon good critical thinking, a healthy curiosity, a love of questioning, and a desire to argue and debate new or provocative issues (Jewell & McCann, 1997). There are many elements of creative thinking in Aikido. In founding Aikido, Morihei Ueshiba demonstrated creativity by combining classical jujutsu and the principles of swordsmanship and he brought out the best in the two arts with Aikido. According to Ueshiba (1987: 40), Aikido was born from the struggle to answer such vital questions as "What would I do when confronted by someone physically stronger than myself? How can I overcome the other without using weapons of any kind? Without resorting to foolhardy violence or psychological trickery while retaining the integrity of budo, what is the most rational form of subduing an opponent?' Not only was Aikido developed through the creative thinking of the Founder, creativity is also inherent in Aikido practice. This is especially the case in jiyu waza (free techniques). Students may perform any techniques during jiyu waza. There are endless numbers of techniques and variations, and infinite possibilities exist.

For creativity to occur, a sound knowledge base is essential. In Aikido, many techniques are derived one after the other from a single basic principle. Hence, repetitive training in basic techniques is emphasised so that students have an extensive knowledge base for creative movements to be manifested later. An environment that encourages experimentation is more likely to promote creativity. In Aikido practice, it is not frowned upon if a student performed a technique different from the one being taught. In fact, the ability to use an alternative technique when the partner resists or changes her/his form of attack is highly encouraged. Thus, the environment in which Aikido is practised allows for creativity.

In Aikido, senior students are often encouraged to abandon fixed forms (associated with the conscious) for free, fluid and spontaneous movements (associated with the 'unconscious'). Morihei Ueshiba advised:

In Aikido there are no forms and no pattern. Natural movements are the movements of aikido, Its depth is profound and it is inexhaustible (Ueshiba 1987: 89).

This advice is a reminder directed to students who have attained a certain level of proficiency in Aikido but are so attached to form that they lack the natural, flowing movements that are the ultimate manifestations of Aikido. In the paradigm of martial arts, free and spontaneous movements are creative movements.

An interesting feature of Aikido is the utilisation of imagination in the execution of Aikido techniques. A student may be instructed to extend energy beyond the walls of the dojo (place of enlightenment/training area) or to imagine water (ki) flowing out of the fingers like a garden hose. Hyams (1982) also described how he was asked to think of the lower abdomen as a valve that sends water (ki) through the arms and legs. There is also frequent use of analogies to describe Aikido concepts. For instance, the way a stream flows past a rock in its path is often used to describe the effortless diversion of an opponent's force/energy. Hence, Aikido provides opportunities for gifted students to extend their imagination to make connections between Aikido and the world around them.

Caring thinking in Aikido

Lipman (1994) introduced caring thinking as one aspect of complex thinking. Several studies (eg. Howard-Hamilton, 1994; Howard-Hamilton & Franks, 1995) have found that gifted adolescents possessed a strong justice-orientation. Porter (1999) describes how the advanced value system held by gifted students may cause them to dislike activities (eg. sports) which have no 'meaning'; and how their altruism and compassion may conflict with the stereotypes of 'tough guys'. Such 'problems' are unlikely to come up if gifted student train Aikido because of the moral values in Aikido principles.

The techniques taught in Aikido were inherited from ancient fighting arts. Inevitably, Aikido teaches some rough techniques (e.g. direct strike and wrist holds). Yet with its emphasis on spherical rotation, techniques which were originally hard and rough have been smoothed and refined. Hence, the emphasis on love, harmony and non-violence, and the 'soft', smooth movements in Aikido will appeal to the affective thinking and valuational thinking of gifted students. Aikido movements and techniques were devised with the idea of negating conflict, of capturing and immobilising the opponent (Ueshiba 1987). Therefore there are no techniques of killing or purposeful harming the opponent within Aikido. The techniques involve only the hands and not the feet and there are no offensive movements such as thrusting, kicking or grappling.

The transmission of the moral and spiritual essence of Aikido is emphasised in the training. Ueshiba asserted that Aikido is a spiritual path. He suggested that disciplining the mind and body, especially the mind, will lead to the perfection of personality and humanity and achieve the ideal of harmony and love. This lofty ideal should appeal to the normative thinking of gifted children.

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The etiquette taught in Aikido- mutual respect, consideration for others and cleanliness - is not forced upon students. Ueshiba believed that it is the natural consequence of learning to sit properly in seiza (formal Japanese style of sitting). He believed that the emphasis of straight posture is related to the upright mind. Hence, students who train in Aikido will naturally want to behave with the highest standards of conduct.

Conclusion

Aikido has much to offer to gifted students in terms of their physical, social and emotional development. According to Porter (1999), gifted children tend to lack confidence in their physical and social skills. She has also suggested that gifted children often acquire motor skills, particularly balance, early but less so for skills that require strength. Aikido, with its de-emphasis of physical strength and emphasis on balance and a stable centre, would therefore appear to be very suited to gifted children. Aikido can contribute to the social development of gifted students. The fact that Aikido training requires at least two persons means that training involves interactions with other fellow students. The pleasant and joyful atmosphere in which Aikido training is carried out helps to enhance the relationships among students too. When personal conflicts arise, students can also apply Aikido principles in their resolution. Porter also mentions that gifted children who are prone to perfectionism may erroneously believe that they must be able to learn everything effortlessly. Mastering Aikido requires patience. It is only through continual practice that one may eventually grasp its significance and gain some benefits, tangible and intangible. Through Aikido, gifted children are likely to realise that mastery of an art takes time and learn to appreciate the process of learning.

Aikido can make a valuable contribution to the curriculum for Gifted Education. As we have argued above, aspects of critical, creative and caring thinking are evident in Aikido. Its association with Zen philosophy will add another valuable dimension to how critical thinking can be considered. Intrapersonal knowledge and interpersonal skills are also developed within martial arts training and they will relate to gifted students' social and emotional well-being which, according to Stednitz (1995), have been largely neglected within education.

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